

IN THE CLAIMS

1. (currently amended) A system comprising a power source and a driving motor, the power source for supplying electrical power to the driving motor, said driving motor drawing electrical power at different rates, the power source comprising:

a first rechargeable energy battery having a first total impedance for storing electrical energy and providing electrical power to the driving motor ~~at a first range of power rates~~;

a second rechargeable power battery having a second total impedance, less than the first total impedance, for storing electrical energy and providing electrical power to the driving motor ~~at a second range of power rates~~;

wherein electrical energy stored in the energy battery is provided to the driving motor in combination with electrical energy stored in the power battery; and

~~wherein the energy battery substantially continuously recharges the power battery with any excess power the second total impedance is between 10% to 60% of the first total impedance.~~

2. (cancelled).

3. (cancelled).

4. (cancelled).

5. (cancelled).

6. (cancelled).

7. (cancelled).

8. (cancelled).

9. (cancelled).

10. (currently amended) The power source as defined in claim 9 1 wherein the second total impedance is between 35% to 50% of the first total impedance.

11. (cancelled).

12. (cancelled).
13. (cancelled).
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46. (cancelled).

47. (previously amended) A vehicle comprising:

a vehicle housing;

a motor structured and located so that operation of the motor can drive the vehicle into motion;

a first battery having a first energy density, with the first battery being rechargeable;

a second battery having a second energy density, with the second energy density being greater than the first energy density; and

a battery connection device structured and located to electrically connect at least the first battery to the motor and the second battery;

wherein the motor, the first battery and the second battery are all fixed to the vehicle housing so that the first battery is spatially proximate to the motor and the second battery is spatially remote from the motor.

48. (previously amended) The vehicle of claim 47 wherein:

the first battery comprises at least two separate battery housings electrically connected in series; and

the second battery comprises at least two separate battery housings electrically connected in series.

49. (previously amended) The vehicle of claim 47 wherein the second battery is a lithium ion battery.

50. (cancelled).

51. (cancelled)

52. (new) A vehicle comprising:

a vehicle housing;

a motor structured and located so that operation of the motor can drive the vehicle into motion;

a first battery having a first energy density;

a second battery having a second energy density, with the second energy density being greater than the first energy density; and

a first battery circuitry structured to electrically connect the first battery and the second battery in parallel so that there are no switch type electrical elements for opening and closing the parallel connection of the first battery circuitry; and

a second battery circuitry structured to electrically connect the first battery and second battery to the motor so that electrical energy from the first battery circuitry can drive the motor to drive the vehicle into motion.

53. (new) The vehicle of claim 52 wherein the first battery circuitry comprises a fuse.

54. (new) The vehicle of claim 52 wherein:

the motor comprises a regenerative braking system structured to provide electrical energy, from time to time, by operation of the motor; and

the second battery circuitry is further structured so that electrical energy from the regenerative braking system is received by the first battery circuitry to recharge the first battery and/or second battery.

55. (new) A vehicle comprising:

a vehicle housing;  
a motor structured and located so that operation of the motor can drive the vehicle into motion;

a first battery comprising n1 first battery cells connected in series, where n1 is an integer greater than 1, where each first battery cell has a full charge nominal voltage between a value between min1 volts and max1 volts, where a first battery full charge nominal voltage is in a range between (n1 \* min1) volts and (n1 \* max1) volts, and where the first battery and its constituent first battery cells have a first energy density;

a second battery comprising n2 second battery cells connected in series, where n2 is an integer greater than 1, where each second battery cell has a full charge nominal voltage between a value between min2 volts and max2 volts, where a second battery full charge nominal voltage is in a range between (n2 \* min2) volts and (n2 \* max2) volts, and where the second battery and its constituent second battery cells have a second energy density; and

battery circuitry structured to electrically connect the first battery, the second battery and the motor so that the first battery and/or second battery can supply electrical energy to drive the motor to drive the vehicle into motion;

wherein, the first energy density is greater than the second energy density and wherein the first battery full charge nominal voltage range and the second battery full charge nominal voltage range substantially overlap.

56. (new) The vehicle of claim 55 wherein:

the motor comprises a regenerative braking system structured to provide electrical energy, from time to time, by operation of the motor; and  
the battery circuitry is further structured so that electrical energy from the regenerative braking system is received by the first battery circuitry to recharge the first battery and/or second battery.